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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

LEVITAN, DMITRY

ART UNIT

PAPER NUMBER

2662

DATE MAILED: 01/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/383,629

Applicant(s)

SALMANIAN, MAZDA

Examiner

Dmitry Levitan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 and 18-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-16, 18-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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Applicant amendment, filed January 2, 2003 has been entered. Claims 1-16 and 18-20 remain pending.

Claim Rejections - 35 USC § 112

1. Claim 14 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The specification does not provide sufficient details to enable a skilled in the art to make and use the invention because it does not adequately describe how to implement FER estimates into a MAC layer device.

The specification does not provide enough details about the structure and operation of the elements associated with the above identified claimed features to enable one skilled in the art to make and use the invention without undue experimentation.

2. Claims 14, 15 and 16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims do not specify any structures that would define the claimed devices: means for making an estimate of new system FER and means for deciding to admit or to deny the new session on the basis of the new system FER estimate.

Claim Rejections - 35 USC § 103

3. Claims 1-4, 10, and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scholefield (US 6,216,006) in view of Beming (US 5,740,537).

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Regarding claims 1 and 19, Scholefield teaches all claim limitation of a method and computer code of performing call admission control upon a receipt of a request for a new session comprising:

Making an estimate of a new system QoS (bandwidth on Fig. 3 and col. 2 lines 64-67, col. 3 lines 1-8; col. 3 lines 54-57) which will result should new session be admitted (recursive estimator on Fig. 4 and col. 4 lines 6-17); and

Deciding to admit or deny the new session on the basis of the new system QoS estimate (col. 4 lines 18-20).

Regarding claims 2 and 20, Scholefield teaches making an estimate of a previous system QoS (network measured load 30 on Fig. 3 and col. 3 lines 58-67);

Determining the estimate of a degradation in the system should new session be admitted (Effective bandwidth of new service request 32 on Fig. 3); and

Combining the estimate of degradation to the previous system QoS to obtain the estimate of total system (un-used bandwidth 36 on Fig. 3 and col.4 lines 1-5).

Regarding claim 3, Scholefield teaches making an estimate of a previous system QoS at the time of the request comprises measuring the system QoS (col. 4 lines 34-48)

Regarding claim 4, Scholefield teaches starting with previous system QoS equal to initial system QoS (admission grant on Fig. 1 and col. 4 lines 33-35);

Each time a session is admitted or ended adjusting a degradation reduction for the session from the previous system QoS (step 160 on Fig. 1 and col. 4 lines 35-48).

Regarding claim 10, Scholefield teaches comparing the new QoS estimate (network measured load 30 and effective bandwidth 32 on Fig. 3 col. 3 lines 58-67) to a target QoS (theoretical

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channel capacity 34 on Fig. 3 and col. 4 lines 1-5) and admitting or denying the session based on the comparison.

Scholefield does not teach using frame error rates (FER) as a QoS determiner .

Beming teaches using frame error rates (FER) as a QoS determiner (col. 6 lines 45-60). It would have been obvious to one of ordinary skill in the art at the time the invention was made to add using frame error rates (FER) as a QoS determiner of Beming to the system of Scholefield to improve the system performance in interference environment.

Response to Arguments

4. Applicant's arguments filed January 3, 2003 have been fully considered but they are not persuasive.

On page 3 of the Response, Applicant argues that FER implementation into MAC layer device is disclosed on pages 9 and 10 of the application.

Examiner respectfully disagrees.

The MAC layer is well understood aspect of communication device and the disclosure locate the MAC layer in the base controller 18, however means for estimating of a new system FER in the MAC layer and deciding to admit or deny the new session using MAC layer are not disclosed on pages 9-10 of the specification. The application does not disclose operation or structure of claimed means to enable one skilled in the art to make and use the invention without undue experimentation.

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On page 3 of the Response, Applicant argues that claims 14, 15 and 16, re-written in independent form overcome the 35 U.S.C. 112 second paragraph rejection.

Examiner respectfully disagrees.

The device limitations of the claims were directed to a method claim 1. This informality was resolved in the Amendment. However the claims do not specify any structure that would define the claimed device.

On page 5 of the Response, Applicant argues that Scholefield does not teach using QoS at all in performance call admission.

Examiner respectfully disagrees.

Scholefield teaches using QoS with traffic descriptors as mean bit rate, peak beat rate and delay (col. 3 lines 9-22) and the effective bandwidth as the amount of bandwidth has to be reserved in order to meet QoS requirements (col. 3 lines 23-25) to provide users with QoS levels (col. 2 lines 64-66). Also see QoS classes as disclosed by Scholefield in Table 1.

On page 5 of the Response, Applicant argues that Beming does not teach predictive function that is implemented to obtain an expected new system frame error rate.

Examiner respectfully disagrees.

Scholefield, not Beming, does teach an estimate of new system QoS, as Examiner pointed on page 4, item 8 of the Office Action.

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On page 6 of the Response, Applicant argues that Scholefield and Beming teachings cannot operate in combination.

Examiner respectfully disagrees.

Scholefield teaches both steps of the applicant method, but uses other than FER QoS determiners, Beming teaches FER as QoS determiner.

Scholefield method will work fine with FER as QoS determiner.

On page 7 of the Response, Applicant argues effective bandwidth cannot be used as QoS determiner, because of the situations where adding bandwidth will result in a degradation of QoS.

Examiner respectfully disagrees.

Scholefield teaches effective bandwidth incorporating mean and peak rates and delay, and establishes QoS classes to maintain quality of service for each user of the network.

There are ways to specify QoS, effective bandwidth is one of them, and FER is other.

Both specifications: effective bandwidth and FER have their pro and contra in different systems, but both can be used to establish QoS classes.

Examiner therefore believes that the cited references meet all the claims 1-4, 10, 15, 16 and 18-20 limitations and the rejection is proper.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dmitry Levitan whose telephone number is 703-305-4384. The examiner can normally be reached on 8:30 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on 703-305-4744. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4750.

Dmitry Levitan
Patent Examiner.
January 24, 2003



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